transmissions where an error had occurred.[157] Thus, the original document was the message delivered to the telegraph company.[158]

The impact of the Best Evidence Rule softened considerably as duplication techniques developed beyond scriveners toiling in candle-lit halls. Initially, courts excepted carbon copies from the Rule, under the rationale that the same impression made both original and duplicate.[159] Courts labeled such copies "duplicate originals."[160] Photocopies and products of other technologies lacked this characteristic, but the Uniform Photographic Copies of Business and Public Records as Evidence Act[161] and Article X of the Federal Rules of Evidence[162] ultimately accepted them as best evidence as well. One court justified this result by noting that the chief concern of the Best Evidence Rule was

> the human frailty of a copier, as a Bob Cratchit, fingers numbed by the cold in the counting house and fraught with anxiety over the health of Tiny Tim, might distractedly misplace a decimal, invert a pair of digits or drop a line. A Xerox machine, by way of contrast, does not worry about Tiny Tim and does not, therefore, misplace decimal points, invert digits, drop lines, or suffer any of the mental lapses that flesh is heir to.[163]

The latest communications technology, electronic mail, presents perplexing questions regarding the original document requirement of the Best Evidence Rule. Since this medium employs intangible electronic transmissions instead of paper during the communications process, determination of which — if any — of the transmissions should be considered an original document is difficult. Most of these issues have been mooted, however, by Article X of the Federal Rules of Evidence, which considers a broad range of computer-generated documents.[164] As with telegrams, determination of the original electronic mail transmission will be governed by a jurisdiction's substantive law of contracts. Federal Rule of Evidence 1001(3) then provides that "[i]f data are stored on a computer or similar device, any printout or

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157. *See* Annotation, *Telegraph Company as Agent of Sender so as To Bind Him as Against Addressee by Mistake in Transmitting Message*, 42 A.L.R. 293, 296-98 (1926).

158. *See, e.g.*, Smith v. Easton, 54 Md. 138, 145 (1880); Howley v. Whipple, 48 N.H. 487, 488 (1869).

159. McCORMICK, *supra* note 23, § 236.

160. *See* Toho Bussan Kaisha, Ltd. v. American President Lines, Ltd., 265 F.2d 418, 423-24 (2d Cir. 1959).

161. 9 U.L.A. 417 (1951). Under this widely adopted act, regularly kept photocopies of business and public records are admissible without regard to the original.

162. FED. R. EVID. 1001-1008.

163. Thompson v. State, 488 A.2d 995, 1006 (Md. Ct. Spec. App. 1985).

164. *See* FED. R. EVID. 1001 advisory committee's note ¶ 1 ("Present day techniques have expanded methods of storing data, yet the essential form which the information ultimately assumes for usable purposes is words and figures. Hence the considerations underlying the rule dictate its expansion to include computers, photographic systems, and other modern developments.").

other output readable by sight, shown to reflect the data accurately, is an 'original.' "[165] Since electronic mail messages are ordinarily stored on general purpose computers or similar systems, their introduction into evidence poses no difficulties under the current language of the Best Evidence Rule.[166] Under this rule, computer printouts of electronic mail transmissions should fare as well as telegrams for purposes of determining the best evidence.[167]

### B. *Telefacsimiles and the Best Evidence Rule*

Surprisingly, questions linger over the application of the Best Evidence Rule to telefacsimiled documents, despite the maturity and broader use of telefacsimile machines relative to electronic mail. Of course, the substantive law of contracts governs transactions conducted by telefacsimile. But unlike the other technologies considered here, the telefacsimile transmits images of documents, prompting some courts to draw analogies with photocopiers rather than telegraphy or teletype.[168] Indeed, the term "telefacsimile" itself implies duplication as well as communications capabilities. Consideration of the telefacsimile machine as a duplication technology, albeit as one more susceptible to error or fraud than a modern photocopier,[169] adds uncertainty to the potential admissibility of telefacsimiles within the Best Evidence Rule. The few courts that have considered this issue have approved telefacsimiled documents under the Rule,[170] although at least one dissenting voice exists.[171]

Several arguments support the majority position. First, the Federal Rules of Evidence may be read to include telefacsimiled documents as duplicates, which are admissible to the same extent as an original.[172] The definition of duplicate includes "a counterpart produced by . . . electronic rerecording, . . . or by other equivalent techniques which accurately reproduces the original."[173] Despite the

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165. FED. R. EVID. 1001(3).

166. Assurance that the message as stored is the one that the sender originally forwarded is presumably met by the authentication requirements for such messages. *See supra* notes 121-39 and accompanying text.

167. *But see* WRIGHT, *supra* note 7, § 10.5 (noting two somewhat attenuated ambiguities with respect to the Best Evidence Rule and electronic mail messages, and arguing that the Rule should not apply to such messages).

168. *See, e.g.*, People v. May, 557 N.Y.S.2d 203 (App. Div.), *app. denied*, 561 N.E.2d 900 (1990).

169. *See supra* notes 91-95 and accompanying text.

170. *May*, 557 N.Y.S.2d at 204; State v. Hutchison, No. 89-2148-CR-NM, 1990 Wis. App. LEXIS 303 (Apr. 11, 1990).

171. *See* Barraclough v. Secretary of State for the Envt., CO/47/89 (Q.B. July 19, 1989) (LEXIS, Enggen library, Cases file) ("In my view [a telefacsimile] is not an original document. . . .' " (quoting *In re* A Company (No 002634 of 1987) (unreported))).

172. FED. R. EVID. 1003.

173. FED. R. EVID. 1001(4).

chance of error during telefacsimile machine transmissions,[174] few would argue that telefacsimiled documents are ordinarily inaccurate reproductions. The telefacsimile machine may be distinguished from the more localized duplication techniques mentioned in the Federal Rules,[175] however, because it is primarily a communications device which operates through long-distance duplication.

A second argument for admission of telefacsimiles under the Best Evidence Rule concedes that telefacsimiles are physically only copies, but contends that they are the documents actually relied upon by one party in a commercial setting.[176] As such, telefacsimiles should be treated as legally operative originals. Courts have accepted this reasoning in other contexts,[177] and have also adopted local rules allowing attorneys to file court documents through the telefacsimile machine.[178] These courts consider, and often stamp, telefacsimiled filings as "original" when received, tacitly approving this argument.[179]

An examination of the purposes of the Best Evidence Rule also demonstrates that it should not bar the admission of telefacsimiles.[180] Telefacsimile machines do not generate the kinds of error which motivated the Best Evidence Rule.[181] Unlike manual copying, the telefacsimile process cannot invert, delete, or insert characters into a writing. Although errors such as line or page skipping occur infrequently,[182] telefacsimile machine users typically adopt protocols, such as numbering the pages and paragraphs of telefacsimiled documents, to ensure accurate communication.[183] Judicial acceptance of computer generated evidence, which is more prone to mistake or fraud than a telefacsimile,[184] further indicates that telefacsimiles should be adopted as best evidence.

As commercial use of telefacsimiles becomes commonplace, courts

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174. *See supra* notes 89-90 and accompanying text.

175. *See* FED. R. EVID. 1001(4) (mentioning "a counterpart produced by the same impression as the original, . . . photography, . . . mechanical or electronic re-recording . . . [and] chemical reproduction . . . .").

176. *See* WRIGHT, *supra* note 7, § 10.5.

177. *See, e.g.*, United States v. Taylor, 648 F.2d 565, 568 n.3 (9th Cir. 1981) (Here, a bank officer allowed a loan in reliance upon either a telefacsimile or a photocopy of a telefacsimile of a fraudulent letter. The court upheld the admissibility of this document on other grounds, but mentioned the argument that the bank had relied on the telefacsimile. The court also upheld the defendant's conviction of wire fraud.).

178. *See* Sokasits, *supra* note 8; Bordman, *supra* note 93, at 1370-73.

179. *See* Wright, *supra* note 89.

180. *See supra* text accompanying note 151; *see also* Bordman, *supra* note 93, at 1383 ("Faxed documents of undisputed accuracy . . . are sufficiently trustworthy to be admitted as primary evidence.").

181. *See supra* notes 86-95 and accompanying text.

182. *See supra* notes 89-90 and accompanying text.

183. *See* Wright, *supra* note 89.

184. *See supra* note 122 and accompanying text.

will increasingly be called upon to consider their evidentiary status. An anomalous invalidation of telefacsimiles under the Best Evidence Rule would only serve to inhibit business users from taking full advantage of a useful communications tool. Past judicial cognizance of the increasing reliability of and reliance upon communications, duplication, and computer technologies should serve as useful precedents for courts facing this novel issue.

## III. LIABILITY ALLOCATION

Although most users consider telegraph, teletype, telefacsimile, and electronic mail technologies to be extremely reliable,[185] communication errors still occur. Sources of these errors range from atmospheric phenomena to properties of the transmitting equipment itself.[186] If any of these events takes place, the contents of the message, including key contractual terms such as price or quantity, may be altered.[187] This Part examines the legal consequences of such modifications. Section III.A evaluates competing views on whether an offeror is bound by the contractual terms as he sent them, or as they were received, through telegraph and teletype systems. This section also explores the potential liability of the telegraph or teletype company for such lapses. Section III.B applies these standards to telefacsimile and electronic mail systems, while also noting the significance of modern business practices and error-correcting protocols to the development of appropriate liability allocation standards. This Part concludes that the competing views of liability allocation rest on theories of agency, common carriage, and contract law, rather than characteristics of individual media, and argues that these doctrines should be unaffected by the advent of new technologies.

### A. *Telegraph and Teletype*

As a consequence of the frailty of early telegraphy, courts heard a large number of cases concerning transmission errors altering crucial contract terms.[188] From these decisions, two views on the validity of the modified contract and the liability of the telegraph company emerged. A minority of cases considered the telegraph company to be the offeror's agent, and bound the offeror to the terms of the message

185. *See, e.g.*, Western Twine Co. v. Wright, 78 N.W. 942, 943-44 (S.D. 1899) (telegraphy); Charles Christian, *Telex Holds Its Own*, 131 SOLIC. J. 880 (1987) (teletype); Sokasits, *supra* note 8, at 535 (telefacsimile machine); *Report and Model Trading Agreement*, *supra* note 9, at 1686 (electronic mail).

186. *See supra* text accompanying note 126.

187. *See, e.g.*, Peter H. Lewis, *The Executive Computer: New Modems Pick Up the Pace*, N.Y. TIMES, Apr. 3, 1988, § 3, at 11 ("[I]t is wise to pause and reflect on the dangers of high-speed transmission. . . . [T]he accidental introduction of an extra goose egg or two in a batch of contract bids can cost you more than a night's sleep.").

188. *See* Annotation, *supra* note 157

as delivered in its modified form.[189] Since the offeror had selected the telegraph as its communications medium, courts reasoned that the offeror was the appropriate party to bear the burden of miscommunication.[190] The offeror could, however, seek damages from the telegraph company for its negligent conduct.[191] These courts cast telegraph companies as common carriers, held them to a correspondingly high standard of care[192] and voided attempts by telegraph companies to limit liability by contract.[193]

The majority of the courts facing this issue, although similarly considering telegraph companies to be common carriers, came to a much different result. These courts used this status not to hold the company to a high standard of care, but to deny an agency relationship between the carrier and its customer.[194] These courts recognized that telegraph companies did not have the offeror's authority to alter a submitted message,[195] nor could the offeror supervise the company's operations.[196] Instead, the telegraph company merely served the function of providing rapid communication.[197] Furthermore, because each party had agreed to different terms, these courts denied the existence of a contract.[198] These decisions allowed injured parties to recover damages from the telegraph company for negligent conduct,[199] but upheld the contractual limit on liability maintained by the telegraph company, which typically restricted recovery to the transmission fee unless the user paid a higher fee for multiple transmissions.[200]

In sum, then, the majority of courts adopted the principle that parties could not form a contract through erroneously altered telegraph transmissions. A significant minority of jurisdictions,[201] however, maintained that the sender was the principal of the telegraph company, and bound him to altered contract terms.

The seminal case of *Primrose v. Western Union Telegraph Company*,[202] concerning telegraphic communications between principal

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189. *See, e.g.*, Des Arc Oil Mill v. Western Union Tel. Co., 201 S.W. 273 (Ark. 1918); J.L. Price Brokerage Co. v. Chicago, B. & Q. Ry., 199 S.W. 732 (Mo. 1917); Brooke v. Western Union Tel. Co., 46 S.E. 826 (Ga. 1904).

190. *See* Ayer v. Western Union Tel. Co., 10 A. 495, 497 (Me. 1887).

191. *See* Des Arc Oil Mill v. Western Union Tel. Co., 201 S.W. 273 (Ark. 1918).

192. *See Ayer*, 10 A. at 496.

193. *See* 10 A. at 496.

194. *See* Annotation, *supra* note 157, at 293.

195. *See, e.g.*, Pegram v. Western Union Tel. Co., 6 S.E. 770, 773 (N.C. 1888).

196. *See, e.g.*, Pepper v. Western Union Tel. Co., 11 S.W. 783, 784 (Tenn. 1889).

197. *See, e.g.*, Smith v. Western Union Tel. Co., 83 Ky. 104, 113-14 (1885).

198. *See, e.g., Pepper*, 11 S.W. at 784-85.

199. *See, e.g., Pegram*, 6 S.E. at 770.

200. *See, e.g.*, Wann v. Western Union Tel. Co., 37 Mo. 472, 482-83 (1866).

201. *See* Annotation, *supra* note 157, at 293.

202. 154 U.S. 1 (1894)

and agent, rather than a commercial transaction between parties at arm's length, supports the majority view. Here, a wool dealer sent an encoded message to a purchaser, opting for the standard telegraph transmission fee, rather than the greater fee which included a confirmatory retransmission. A transmission error resulted in the overpurchase of wool and a loss for the dealer. The Supreme Court refused to hold the telegraph company liable, characterizing telegraphy as a media "peculiarly liable to mistakes."[203] Interestingly, it rejected the categorization of telegraph companies as common carriers, yet held them to an analogous standard of care,[204] and validated the telegraph company's restriction of liability.[205] Judge (later Justice) Cardozo faced similar facts in *Kerr S.S. Co. v. Radio Corp. of America.*[206] The *Kerr* court relied upon *Hadley v. Baxendale*[207] in stating that the telegraph company's liability would be limited to the transmission fee when the telegraph's contents did not disclose the nature of the transaction, and thus did not make the company aware of the probability and magnitude of the harm that might result from its carelessness.[208]

The majority position on liability eroded as courts increasingly recognized telegraphy as "essential and indispensable . . . to the commercial and social interests of the whole world."[209] Although most courts continued to reject contracts formed on the basis of modified transmissions, they also invalidated contractual limitations on liability established by telegraph companies.[210] Courts offered two reasons for this change. First, courts recognized that after years of experience and technological improvements, telegraphy was no longer a fragile art, but a robust and accurate communications medium.[211] Second, courts that had characterized infant telegraph companies as poor, struggling corporations charging small fees for message transmission were surprisingly candid in their realization that many telegraph companies had become "immensely rich [from] charging a great deal more than it

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203. 154 U.S. at 14.

204. 154 U.S. at 14.

205. 154 U.S. at 15-16.

206. 157 N.E. 140 (N.Y. 1927).

207. 156 Eng. Rep. 145 (1854). This case, a staple of contracts courses, held that a defendant will not be liable for consequential damages resulting from a failure or delay in completing a contract, unless the defendant was aware of the circumstances giving rise to those damages. In *Hadley v. Baxendale,* the owners of a corn mill sued a carrier which had failed to deliver timely an engine shaft. Without the shaft, the plaintiffs could not operate their mill. The court denied the plaintiffs damages for lost profits, stating that in ordinary course, such damages would not have occurred, and that the carrier had no knowledge of the special circumstances present here.

208. 157 N.E. at 141.

209. Reed v. Western Union Tel. Co., 37 S.W. 904, 905 (Mo. 1896).

210. *See, e.g.,* Strong v. Western Union Tel. Co., 109 P. 910, 914 (Idaho 1910); Tyler, Ullman & Co. v. Western Union Tel. Co., 60 Ill. 421, 435-38 (1871); *Reed,* 37 S.W. at 904-05.

211. *See Reed,* 37 S.W. at 905; *Tyler, Ullman & Co.,* 60 Ill. at 435-36.

actually costs to transmit such messages and to give them a fair return upon the capital investment in the business."[212] These jurisdictions typically saw an altered transmission as prima facie evidence of negligence. Evidence of bad weather, disturbed lines, or other conditions beyond the control of the telegraph company could rebut this presumption.[213] Other courts taking the majority view did not step quite so far, but found telegraph companies liable for their gross, as distinguished from ordinary, negligence while handling messages.[214]

Courts have yet to apply these standards to teletype transmission errors, perhaps because of the reliability of this technology. Communication errors may occur, however, even when contracting parties employ this trustworthy medium. The sender might misdial the recipient's teletype number.[215] Also, the recipient's teleprinter might run out of paper during a transmission, continuing to receive, but not record, the incoming message.[216] Judge Posner considered this scenario in *Evra Corp. v. Swiss Bank Corp.*,[217] where the defendant bank failed to comply with a teletyped transfer of funds request. The bank's sloppily maintained teletype machines were the likely cause; the request was never printed or simply mishandled.[218]

Despite the likely source of the transmission error, the *Evra* court held that the sender should have taken additional precautions, for "messages sometimes get lost or delayed in transit among [parties] located 5000 miles apart . . . ."[219] The court also rejected the district court's conclusion that a bank should realize deleterious consequences can spring from a failure to fulfill a transfer of funds request.[220] Although contract formation was not at issue in this decision, the court's rather generous application of *Hadley v. Baxendale* indicates that the risk of a teletype transmission error may rest with the party that selected the media. Of course, this approach is identical to the rationale supporting the minority view of liability allocation for telegraphy. *Evra* thus suggests that at least one court will enforce agreements formed through altered teletype transmissions, rather than following the majority view which denies contract status to altered communications by telegraph.

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212. *Strong*, 109 P. at 914.

213. *See, e.g.*, Rittenhouse v. Independent Line of Tel., 44 N.Y. 263, 265 (1870).

214. *See, e.g.*, Hart v. Western Union Tel. Co., 6 P. 637, 640 (Cal. 1885); Wann v. Western Union Tel. Co., 37 Mo. 472, 482 (1866). *But see* Trammel v. Western Union Tel. Co., 129 Cal. Rptr. 361, 370-71 (Cal. Ct. App. 1976); *Strong*, 109 P. at 916-17; *Reed*, 37 S.W. at 906 (denying a distinction between gross and ordinary negligence).

215. *See* Afovos Shipping Co. SA v. Pagnan, 1 W.L.R. 195, 198 (1983).

216. *See* WRIGHT, *supra* note 7, § 4.2.

217. 673 F.2d 951 (7th Cir.), *cert. denied*, 459 U.S. 1017 (1982).

218. 673 F.2d at 953.

219. 673 F.2d at 957.

220. 673 F.2d at 959.

### B. *Telefacsimile and Electronic Mail*

An examination of the arguments supporting the competing views on liability allocation for telegraph and teletype transmission errors provides guidance for cases involving telefacsimile and electronic mail systems. Most of the arguments depend very little upon the specific nature of the technology, suggesting that either doctrine of liability will readily extend to telefacsimile and electronic mail systems. Courts which deny the formation of a contract because of an altered transmission should continue to do so regardless of which medium is employed. Furthermore, a jurisdiction's acceptance or denial of agency status for telegraph companies should extend to the newer communications technologies.

A more critical distinction may be the potential categorization of electronic communications service providers as common carriers. Most courts, regardless of their view of liability allocation, considered telegraph companies to be common carriers, or placed similar responsibilities upon them.[221] Like traditional common carriers, telegraph companies provide a specified service at a standard price, engage in a business in which the public is deeply concerned, and are bound to serve all customers equally.[222] Although telegraph companies do not ship goods along a route in the manner of a traditional common carrier, the transmission of messages along a telegraph wire provides a ready analogy. These rationales are less persuasive for teletype service providers, telefacsimile machine manufacturers, and electronic mail service providers. A crucial distinction exists between an individual using owned equipment as opposed to hiring another to transmit a message. In contrast to the small fee imposed on the sender of a telegram, the user of these systems must make a significant investment in terminals, printers, modems and telefacsimile machines. Further, such devices simply present different methods of using the existing telephone network. Indeed, for many systems, particularly telefacsimile machines, courts will more accurately view service providers as more closely analogous to product manufacturers than common carriers.

To the extent either view of liability allocation for modified telegraph transmissions relies upon the categorization of telegraph companies as common carriers, the expansion of that view to more modern communication system providers, which are even further removed from traditional ideas of common carriage than their predecessors, becomes increasingly suspect. Since common carrier status is just one of several available rationales for each position,[223] however, its weight is

221. *See supra* note 194 and accompanying text; Phil Nichols, Note, *Redefining "Common Carrier": The FCC's Attempt at Deregulation by Redefinition*, 1987 DUKE L.J. 501, 508-09.

222. *See, e.g.*, Strong v. Western Union Tel. Co., 109 P. 910, 915-16 (Idaho 1910); Pegram v. Western Union Tel. Co., 6 S.E. 770, 772-73 (N.C. 1888).

223. *See supra* text accompanying notes 188-200.

unlikely to be controlling. In this instance, then, the differing aspects of more recent communications technologies do not necessarily mandate changing fundamental notions established during the rise of telegraphy as a commercially accepted medium.

Beneath the fundamental standards of liability allocation under the majority and minority views, however, lie details of application to the different technologies. Even under the majority view, if a transmission error results from ordinary or gross negligence,[224] liability will attach to a telegraph company, and thus perhaps to negligent manufacturers and users of telefacsimile machines as well. Like the teletypewriter in *Evra,* some telefacsimile machines continue to receive messages even when out of paper.[225] These systems also cannot guarantee delivery of a telefacsimile to the intended recipient, particularly when the telefacsimile machine is located in a busy mailroom.[226] A commercial partner who allows his telefacsimile machine to run out of paper, or who misplaces an important telefacsimiled document, might be considered negligent.[227] The product design itself might also be considered faulty, thus exposing the manufacturer to liability.

Although the *Evra* court was not swayed by these arguments,[228] its rationale that communications over thousands of miles are subject to some risk bears reconsideration. Transmissions over distances of this magnitude have become customary in the ordinary course of modern business. Telefacsimile machines are normally quite reliable whether the document is transmitted 5000 miles or the length of a city block; business users properly rely upon them for important communications.[229] Further, the allegedly negligent handling of the *Evra* plaintiff's teletyped message occurred not over the great distance mentioned by the court, but in the defendant's office after the data had safely arrived.[230] The mishandling would have occurred no matter where the message's source. As business users also accept telefac-

224. *See supra* note 199 and accompanying text.

225. *See* BANKS, *supra* note 8, at 53-54.

226. *See Beware! Fax Attacks!, supra* note 91, at 60.

227. The calculus of negligence might also consider the ease with which a telefacsimile's sender can verify its receipt. Typically, a sender can simply call the intended recipient minutes after entering a document into a telefacsimile machine. Such a duty of care is only appropriate for weighty transactions, however, given the inefficiency it engenders and the reliability of telefacsimile machines.

228. *See supra* notes 217-20 and accompanying text. The court stated that the only issue before it "is whether [the plaintiff] was entitled to consequential damages." 673 F.2d at 955. However, the court was obviously unimpressed with the plaintiff's arguments that the defendant, a Swiss bank, was negligent. "[The plaintiff] should have known that even the Swiss are not infallible; that messages sometimes get lost or delayed in transit among three banks, two of them located 5000 miles apart, even when all banks are using reasonable care; and that therefore it should take its own precautions against the consequences — best known to itself — of a mishap that might not be due to anyone's negligence." 673 F.2d at 957.

229. *See* Sokasits, *supra* note 8, at 535.

230. 673 F.2d at 953.

simile machines as global communications tools, these liability issues warrant further consideration. Under either liability allocation scheme, then, a finding of negligence for mishandling of a commercial telefacsimiled document may be appropriate in facts similar to those of *Evra*, and the negligent party should bear the loss.

The role of error-correcting protocols[231] in the determination of negligence or breach of warranty also concerns telefacsimile machine manufacturers and electronic mail service providers. Under either a negligence or breach of warranty claim, plaintiffs will be able to demonstrate causation only with difficulty, since the presence of an error-correcting code does not immunize a system from altered transmissions.[232] If a plaintiff can show causation, courts may look to design standards to determine the adequacy of an existing error-correcting code[233] or whether a code should have been implemented at all.[234] Currently, designers widely employ such protocols in electronic mail systems;[235] use is less frequent but increasing in telefacsimile machines.[236]

Even if a system does incorporate an error-correcting code, the gigabit network's theoretical error rate[237] seems uncomfortably high for many commercial users. Much like early telegraph transmissions, which were liable to the whims of unreliable machinery, bad weather, and inexperienced operators,[238] electronic mail messages are subject to uncontrollable changes. Such an error rate might render this sort of electronic mail network "inherently unreliable" for commercial purposes, as the *Primrose* court found for early telegraph systems.[239] If so, electronic mail service providers would properly be able to limit their liability, except possibly in instances of gross negligence, under the standards the majority of these early courts provided.[240] Of course, electronic mail, although it is a new technology, has been able to profit from decades of research and experience in the earlier communications systems. Designers may also implement retransmissions or more accurate, albeit less efficient, error-correcting protocols for systems intended for commercial use. These features heighten the propriety of a presumption of reliability, which applied to mature tele-

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231. *See supra* notes 130-39 and accompanying text.

232. *See supra* notes 134-36 and accompanying text.

233. *See supra* note 137-39 and accompanying text.

234. *See* Peter J. Denning, *Human Error and the Search for Blame*, 33 COMM. OF THE ASSN. FOR COMPUTING MACHINERY, Jan. 1990, at 6.

235. *See* Jerry Pournelle, *Chaos Manor Awards*, BYTE, Apr. 1990, at 53, 66.

236. *See* BANKS, *supra* note 8, at 40-41.

237. *See supra* text accompanying note 138.

238. *See* Reed v. Western Union Tel. Co., 37 S.W. 904, 905 (Mo. 1896).

239. *See supra* notes 202-05 and accompanying text.

240. *See supra* note 199 and accompanying text.

graph systems, for electronic mail networks.[241] Although it is difficult to predict the path courts will take on this issue, factors such as the expectations of users, capabilities of the protocol employed, and promises of the service providers should influence their decision. While no electronic mail network can provide perfect reliability, this technology compares favorably with other media, and a presumption of reliability seems appropriate for typical systems.

In sum, although courts have disagreed on the validity of contracts formed through altered telegrams and the resulting liability of telegraph companies, these conclusions are based upon differing theories of contract law, agency, and common carriage, rather than a careful consideration of the characteristics of telegraphy itself.[242] As a result, these theories of liability allocation are unlikely to change when courts consider new technologies such as the telefacsimile and electronic mail.[243] However, in those jurisdictions where liability is based upon the inherent reliability of a communications medium or the negligence of its operators, telefacsimile machines and electronic mail systems present unique issues. Courts in these jurisdictions should pay careful attention to both the choices made during the design of communications systems and the expectations and customs of modern business users.

## CONCLUSION

Much like early telegraph and teletype systems, telefacsimile machines and electronic mail networks present new means for parties to negotiate and memorialize commercial agreements. Although the speed and accuracy of these media make them highly desirable business tools, their novel features strain traditional notions of contract law and evidence. Fortunately, the judicial experience with earlier communications technologies provides an appropriate framework for balancing competing concerns of efficiency and user protection from altered transmissions. The broad reading of the Statute of Frauds in this setting, along with deference to commercial acceptance of these devices, demonstrates that telefacsimiled and electronically mailed contracts should be as readily authenticated and admitted into evidence as more traditional writings. Courts should be cognizant of the special characteristics of these technologies, however, and stand ready to exact heightened evidentiary showings where, as with certain electronic mail systems, the possibility of fraud or mistake seems great.

Courts should also deem telefacsimiles and electronic mail

241. This presumption is consistent with recent case law which subjects computer manufacturers to an increasing standard of care as vendors of a mature technology. *See* Baum, *supra* note 16, at 53.

242. *See supra* notes 188-200 and accompanying text

243. *See supra* text accompanying note 223

messages to be the best evidence of the contracts they record. For electronic mail messages which have been stored on computers and printed, the Federal Rules of Evidence mandate this result. The impact of the Best Evidence Rule on telefacsimiled contracts is not yet settled, but the policy of protection against fraud and mistake that motivates the Rule suggests that telefacsimiles are appropriate best evidence. Courts should consider telefacsimiles to be duplicates or conceptual originals, and parties should be allowed to enter such documents as the best evidence of the contracts they record under the current structure of the Rule.

In the event an error modifies contractual terms as transmitted through a telefacsimile or electronic mail system, courts seeking to allocate liability will undoubtedly turn to contract law developed for telegraph and teletype systems. Although courts hold carriers liable for their negligent conduct, differing views of liability allocation govern when a contract's altered terms are not the result of negligence. Under the majority view, no contract exists when the offer and acceptance state different terms, and the carrier may limit its liability contractually. A minority view binds the offeror to the terms of the altered contract, but allows him recourse against the carrier without regard to contractual limitations. The difference between these stances is due largely to varying notions of contract law, agency, and carriage, rather than different conceptions of the technologies themselves. As such, either doctrine of liability should readily apply to the latest communications technologies.

The doctrines considered here present only a few of the potential legal problems facing commercial users of telefacsimiles and electronic mail systems.[244] Of course, further issues remain, and courts will undoubtedly encounter new communications media, like hypertext,[245] the Integrated Services Digital Network,[246] or technologies not yet dreamed of, long after they settle the rules for the technologies considered here. But the legal issues remain the same, whether the technology is a lead pencil, telegraphy, or electronic mail. Any technology will challenge courts to consider fully the purposes, as well as the letter, of the relevant legal principles, as well as the unique characteristics of that technology. The importance of these decisions should not be underestimated, for they will determine if these technologies will become the foundation of our Information Age, or unfortunately be stifled by antiquated legal doctrine.

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244. Other issues include the evidentiary rule against hearsay, liability for fraud, and record-keeping requirements. *See generally* WRIGHT, *supra* note 7.

245. ELECTRONIC MESSAGING, *supra* note 2, at 21-23.

246. *See, e.g.*, ROBERT K. HELDMAN, ISDN IN THE INFORMATION MARKETPLACE (1988).

**June 23 (legislative day, June 19), 1995**

**Ordered to be printed as passed**

104TH CONGRESS
1ST SESSION

# S. 652

# AN ACT

To provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE.**

This Act may be cited as the "Telecommunications Competition and Deregulation Act of 1995".

**SEC. 703. PREVENTION OF UNFAIR BILLING PRACTICES FOR INFORMATION OR SERVICES PROVIDED OVER TOLL-FREE TELEPHONE CALLS.**

(a) FINDINGS.—Congress makes the following findings:

(1) Reforms required by the Telephone Disclosure and Dispute Resolution Act of 1992 have improved the reputation of the pay-per-call industry and resulted in regulations that have reduced the incidence of misleading practices that are harmful to the public interest.

(2) Among the successful reforms is a restriction on charges being assessed for calls to 800 telephone numbers or other telephone numbers advertised or widely understood to be toll free.

(3) Nevertheless, certain interstate pay-per-call businesses are taking advantage of an exception in the restriction on charging for information conveyed during a call to a "toll-free" number to continue to engage in misleading practices. These practices are not in compliance with the intent of Congress in passing the Telephone Disclosure and Dispute Resolution Act.

(4) It is necessary for Congress to clarify that its intent is that charges for information provided during a call to an 800 number or other number

widely advertised and understood to be toll free shall not be assessed to the calling party unless the calling party agrees to be billed according to the terms of a written subscription agreement or by other appropriate means.

(b) PREVENTION OF UNFAIR BILLING PRACTICES.—

(1) IN GENERAL.—Section 228(c) (47 U.S.C. 228(c)) is amended—

(A) by striking out subparagraph (C) of paragraph (7) and inserting in lieu thereof the following:

"(C) the calling party being charged for information conveyed during the call unless—

"(i) the calling party has a written agreement **(including an agreement transmitted through electronic medium)** that meets the requirements of paragraph (8); or

"(ii) the calling party is charged for the information in accordance with paragraph (9); or"; and

(B) by adding at the end the following new paragraphs:

"(8) SUBSCRIPTION AGREEMENTS FOR BILLING FOR INFORMATION PROVIDED VIA TOLL-FREE CALLS.—

"(A) IN GENERAL.—For purposes of paragraph (7)(C), a written subscription does not meet the requirements of this paragraph unless the agreement specifies the material terms and conditions under which the information is offered and includes—

"(i) the rate at which charges are assessed for the information;

"(ii) the information provider's name;

"(iii) the information provider's business address;

"(iv) the information provider's regular business telephone number;

"(v) the information provider's agreement to notify the subscriber of all future changes in the rates charged for the information; and

"(vi) the subscriber's choice of payment method, which may be by direct remit, debit, prepaid account, phone bill or credit or calling card.

"(B) BILLING ARRANGEMENTS.—If a subscriber elects, pursuant to subparagraph (A)(vi), to pay by means of a phone bill—

"(i) the agreement shall clearly explain that charges for the service will appear on the subscriber's phone bill;

"(ii) the phone bill shall include, in prominent type, the following disclaimer:

'Common carriers may not disconnect local or long distance telephone service for failure to pay disputed charges for information services.'; and

"(iii) the phone bill shall clearly list the 800 number dialed.

"(C) USE OF PINS TO PREVENT UNAUTHORIZED USE.—A written agreement does not meet the requirements of this paragraph unless it requires the subscriber to use a personal identification number to obtain access to the information provided, and includes instructions on its use.

"(D) EXCEPTIONS.—Notwithstanding paragraph (7)(C), a written agreement that

meets the requirements of this paragraph is not required—

"(i) for calls utilizing telecommunications devices for the deaf;

"(ii) for services provided pursuant to a tariff that has been approved or permitted to take effect by the Commission or a State commission; or

"(iii) for any purchase of goods or of services that are not information services.

"(E) TERMINATION OF SERVICE.—On receipt by a common carrier of a complaint by any person that an information provider is in violation of the provisions of this section, a carrier shall—

"(i) promptly investigate the complaint; and

"(ii) if the carrier reasonably determines that the complaint is valid, it may terminate the provision of service to an information provider unless the provider supplies evidence of a written agreement that meets the requirements of this section.

"(F) TREATMENT OF REMEDIES.—The remedies provided in this paragraph are in ad-

dition to any other remedies that are available under title V of this Act.

"(9) CHARGES IN ABSENCE OF AGREEMENT.—A calling party is charged for a call in accordance with this paragraph if the provider of the information conveyed during the call—

"(A) clearly states to the calling party the total cost per minute of the information provided during the call and for any other information or service provided by the provider to which the calling party requests connection during the call; and

"(B) receives from the calling party—

"(i) an agreement to accept the charges for any information or services provided by the provider during the call; and

"(ii) a credit, calling, or charge card number or verification of a prepaid account to which such charges are to be billed.

"(10) DEFINITION.—As used in paragraphs (8) and (9), the term 'calling card' means an identifying number or code unique to the individual, that is issued to the individual by a common carrier and enables the individual to be charged by means of a

phone bill for charges incurred independent of where the call originates."

(2) REGULATIONS.—The Federal Communications Commission shall revise its regulations to comply with the amendment made by paragraph (1) not later than 180 days after the date of the enactment of this Act.

(3) EFFECTIVE DATE.—The amendments made by paragraph (1) shall take effect on the date of the enactment of this Act.

(c) CLARIFICATION OF "PAY-PER-CALL SERVICES" UNDER TELEPHONE DISCLOSURE AND DISPUTE RESOLUTION ACT.—Section 204(1) of the Telephone Disclosure and Dispute Resolution Act (15 U.S.C. 5714(1)) is amended to read as follows:

"(1) The term 'pay-per-call services' has the meaning provided in section 228(j)(1) of the Communications Act of 1934, except that the Commission by rule may, notwithstanding subparagraphs (B) and (C) of such section, extend such definition to other similar services providing audio information or audio entertainment if the Commission determines that such services are susceptible to the unfair and deceptive practices that are prohibited by the rules prescribed pursuant to section 201(a).".